

Claims

1. Device for separating module bridges (2) arranged in a module bridge strip (1) or module bridge set and for positioning the separated module bridges (2) on a support element (23), characterised by a dividing device (11, 12, 13) for dividing the module bridge strip (1) in the edge regions (7) thereof between in each case two module bridges (2), and a placement wheel (14) for separately receiving and transporting in a slip-free manner the separated module bridges (2) on its peripheral edge side (14a) and for depositing the module bridges (2) onto the moving support element (23) after a rotational movement of the placement wheel (14) has been carried out about an axis (15) oriented parallel to the module bridge plane.
2. Device according to Claim 1, characterised in that the placement wheel (14) has, on its peripheral edge side (14a), spring-loaded holding elements (16) which are spaced apart from one another and are provided for holding and carrying individual module bridges (2) on the peripheral edge side (14a).
3. Device according to Claim 1 or 2, characterised in that the placement wheel (14) has, on its peripheral edge side (14a), a width dimension which corresponds to a length dimension (2a) of a module bridge (2).
4. Device according to one of the preceding claims, characterised in that the placement wheel (14) has, on its peripheral edge side (14a), at least in the region in which the module bridges (2) are received, between a web (18, 19) arranged on the left side and on the right side, recesses for receiving components (4) arranged on the module bridges (2).
5. Device according to one of the preceding claims, characterised in that the dividing device (11, 12, 13)

has a cutting blade (13) or cutting rollers which can be displaced perpendicular to the plane of the module bridge strip and is/are provided for cutting through the module bridge strip (1) in the edge regions (7) thereof.

6. Device according to Claim 5, characterised in that the dividing device (11, 12, 13) is connected to a feed unit (8) for feeding the module bridge strip (1) to the cutting blade (13).

7. Device according to Claim 6, characterised in that the dividing device (11, 12, 13) has a pressure ram (11) for pressing the module bridge strip (1) against a surface (8a) of the feed unit (8) during a dividing operation.

8. Device according to Claim 6 or 7, characterised in that the feed unit (8) has guide elements for laterally guiding the module bridge strip.

9. Device according to one of Claims 6 to 8, characterised in that the feed unit (8) has form-fitting elements (10) for engaging in through-apertures (6) of the module bridge strip (1).

10. Device according to one of the preceding claims, characterised in that the dividing device (11, 12, 13) can be tilted with respect to the placement wheel (14) during a dividing operation.

11. Device according to one of the preceding claims, characterised in that a brake device (20) which bears against part of the peripheral edge side (14a) of the placement wheel (14) and is provided for braking the rotating placement wheel (14) is arranged between the dividing device (11, 12, 13) and the support element (23).

12. Device according to Claim 11, characterised in that the placement wheel (14), under the effect of the brake device (20) and a motor, can be accelerated to a rotational speed at which the circumferential speed corresponds to a speed of the moving support element (23).

13. Device according to Claim 11 or 12, characterised in that the brake device (20) includes a heating element (22) for heating contact adhesive points (3) on the module bridges (2).

14. Device according to one of Claims 11 to 13, characterised in that the brake device (20) has, on a brake shoe (21) which bears against the peripheral edge side (14a) of the placement wheel (14), guide elements for laterally guiding the module bridges (2) during the rotational movement of the placement wheel (14).

15. Device according to Claim 14, characterised in that the brake shoe (21) has two brake linings (25, 26) running along the edge, against which two pressing elements (27, 28) of complementary shape press, said pressing elements being arranged on the peripheral edge side (14a), wherein the module bridges (2) are arranged between the pressing elements (27, 28) and the brake linings (25, 26).

16. Device according to one of the preceding claims, characterised by a counter-roller (24) which is arranged on a side of the support element (23) opposite the placement wheel (14) and is provided for fixing the module bridges (2) on the support element (23).

17. Device according to one of the preceding claims, characterised by a perforation device for perforating the module bridge strip (1) in such a way that the module bridges (2) are separated from one another with the

exception of the edge region (7) of the module bridge strip (1), in order to minimise a cutting force of the dividing device (11, 12, 13).

18. Device according to Claim 17, characterised in that the perforation device is suitable for creating defined interposer edges for transporting the separated interposers in a slip-free and precise manner.